# HEALTH-RELATED RESEARCH IN CANADA

## *Provincial Support Across the Country*

NOVA SCOTIA
Health
Research
FOUNDATION

**Prepared by: Nova Scotia Health Research Foundation**
**September 19, 2001**

102-03406/

**Acknowledgements**

The Nova Scotia Health Research Foundation would like to acknowledge the work of Naomi Mensink who prepared the original version of this document as well as compiled the background information. We would also like to thank all those individuals and organizations who willingly provided us with information and supported our efforts.

**Information Verification**

During the months of July and August 2001, a draft version of this document was circulated to the various jurisdictions and organizations included in this document requesting verification and review of the information. Thank you to all of those who contributed corrections, clarifications, and additional information.

# Health-Related Research in Canada

## *Introduction*

This document provides a high-level description of the nature and type of provincial support available for health research across Canada.

## *Health Research Mechanisms*

In most provinces, there exists some type of arms-length foundation that funds and supports health research. Most of these organizations are financially supported by provincial/territorial governments with funds from investment income, lottery revenues, endowments and/or direct budget allocations. Ontario and the Yukon are the exceptions. In Ontario, there is a range of special programs and funds each with its own rules and mandates and each managed directly by a specific government department. The Yukon does not have a specific budget allocation for research; however, there is money allocated for staff involved in research projects. A brief overview of each province's and territory's funding process is found below.

- In **British Columbia**, a new foundation was announced in March 2001. The Michael Smith Foundation for Health Research offers three capacity-building programs: human resource development (trainee and scholar awards); institutional infrastructure and research networks; and new opportunities/health innovation. The last two programs are not yet up and running.

- **Alberta** supports senior researchers and researchers-in-training recruited from within the province and elsewhere. Their work is funded through personnel awards provided by the Alberta Heritage Foundation for Medical Research. All researchers must be employees of a university or a non-profit organization that supports research. A scientist will be supported through stipend and benefits, using university salary scale and benefits. Alberta is the only province that also awards each of its supported researchers an additional $10,000 or $20,000 a year as a Research Prize for them to use in any way they choose, including personal use.

- **Saskatchewan** funds an arms-length research foundation called the Health Services Utilization and Research Commission. This agency carries out health services and health system research and operates competitive grant programs for university-based researchers in a broad range of health research areas. The province also funds four research groups within the College of Medicine at the University of Saskatchewan and supports clinical trials research at the Saskatchewan Cancer Agency.

- In **Manitoba**, the Manitoba Health Research Council provides a variety of grants including establishment grants, operating grants, postdoctoral fellowships, graduate studentships, bridge funding and matching grants.

- **Ontario** provides funding through a number of mechanisms including direct funding of research agencies and special programs that award operating and infrastructure grants. The province also conducts applied research directly in certain government departments.

- **Quebec** conducts some applied research directly through its government departments and agencies and also provides operating grants through a foundation called Le Fonds de la recherche en sante du Quebec.

- In **New Brunswick**, the Medical Research Fund of New Brunswick provides successful applicants with operating grants and matching funding. In addition, the Department of Health and Wellness conducts some of its own applied research.

- **Prince Edward Island**, through the PEI Health Research Institute, creates the capacity for research by providing seed money to assist in the application process, by paying for peer reviewers, and by providing workshops on grant writing and proposal writing. There is no money allocated for operating grants.

- In **Nova Scotia,** the Nova Scotia Health Research Foundation financially supports health research in four key areas: health-outcome research, medical research, health-services research, and health public-policy research.

- In **Newfoundland and Labrador**, the Newfoundland and Labrador Centre for Applied Health Research operates a number of research centres or groups, most of which are part of Memorial University or the provincial hospital system.

- In the **Yukon**, a number of government health care workers conduct research as part of their job.

- At present, there is no provincial health research program in **Nunavet**.

In addition to direct research funding, most of the provinces have some form of partnership with national agencies such as the Canadian Institutes for Health Research and federal research grant programs. As well, some provinces are beginning to work on specific thematic research projects. Quebec is headed most clearly in this direction.

### *Objectives and Rationales for Conducting Research*

For all of the provinces/territories surveyed, the main objective of supporting health-related research is to improve the likelihood of good health for their citizens. Several provinces including PEI and Ontario also cite increasing the capacity of the province to carry out high-quality research as another objective.

For all of the provinces, another major objective is to attract and retain health professionals. BC, Ontario and Alberta specifically note that the kind of professionals they want to attract are top-level researchers. The other provinces and the Yukon wish to attract and retain physicians and university professors who will have the opportunity to do meaningful research as part of their work.

There are significant differences in the levels of funding available to support health research in the various jurisdictions. Those with significant funding have as part of their mandate to conduct world-class research that will contribute to the leading edge of thinking in health and health care. The provinces with lower levels of funding indicate a desire to move toward the goal of developing world-class research but have a more immediate concern with creating an environment that will keep their key health professionals in the province and enhance the education of students in related fields.

A number of provinces also identified the need to provide researchers and would-be researchers with training in the writing and presentation of research proposals. This is a common challenge.

### *Sources of Funding*

Many provinces use the interest revenue from federal contributions (especially those resulting from Bill C-22) to at least partially fund their health-research programs. For some, such as PEI and New Brunswick, this is their primary source of funds. Alberta stands out as having available a relatively large source of interest revenue coming from an endowment set up by the government. British Columbia is also an exception with its recent $110 million support for a new foundation. Other provinces use taxation or lottery dollars to fund both foundation-supported research and government-conducted research. Most have Memoranda of Understanding with various federally sponsored research programs so that research dollars from the federal government are available to augment provincial contributions. A few (especially New Brunswick) recognize and encourage private donations to government-sponsored research.

### *Relationship with Universities*

Every province and the Yukon work directly with universities in advancing their research programs. In Alberta, all researchers funded must be part of a university system or a non-profit organization that supports research. Manitoba's program supports university researchers at various stages of their careers. Quebec works with the various university research centres to coordinate its programs. In Newfoundland and Labrador, the Centre for Applied Health Research is housed at Memorial University. Hospital-based research is carried out in collaboration with university-affiliated teaching hospitals.

For more detailed information, please see the following provincial reports.

## BRITISH COLUMBIA

### Michael Smith Foundation for Health Research

The Michael Smith Foundation for Health Research replaced the British Columbia Health Research Foundation in 2001. The new Foundation represents the culmination of a year-long strategic planning process by the Coalition for Health Research in British Columbia, which is a voluntary alliance of universities, teaching hospitals, research institutes, non-profit organisations, private sector biotechnology companies and other research stakeholders.

The Foundation is a non-profit society created by the BC government to provide leadership and support for the advancement of health research in the province. The provincial government committed $110 million to put in place initiatives outlined in a strategic plan entitled *Building a British Columbia Health Research Strategy*. A copy of the plan can be found at **www.msfhr.org**.

The strategic plan is based on three capacity-building programs: human resource development (trainee and scholar awards); institutional infrastructure and research networks; and new opportunities/health innovation. The last two programs are still under development.

The Michael Smith Foundation has a vision for creating a BC health research community that:

- has the human resource, infrastructure and research space to compete effectively for national and international funding,
- anticipates and is responsive to BC health needs,
- adds to the BC economy, and
- is recognized globally for research excellence.

### British Columbia Health Research Foundation

The British Columbia Health Research Foundation (BCHRF) was set up in 1977 as a non-profit society to distribute BC Lottery Fund proceeds to health research and education in the province. The BC Health Research Foundation Act of 1990 re-created the Foundation as a statutory corporation.

The Foundation facilitates health research and related activities relevant to the needs of British Columbians and strives to build a strong health research community. It provides grant funds for the full spectrum of health research – from basic lab science through applied clinical studies, health services research, population and psychosocial health research and community health research. BCHRF funding for health research has averaged $6 million a year for the past four years.

Most of the Foundation's funding over its 20-year history has come from the provincial government. However, over the last few years, the Foundation has developed public and private funding partners to extend the resources available to support health research activities in the province. In addition, it has worked to enhance the impact of health research by facilitating information exchange and the use of research findings.

In May 1997, the Minister of Health committed to provide $6.2 million annually to create a stable, secure base of funding for BCHRF granting activities. However, that amount was down from $11 million in 1991. In 1999, only $1million was allotted for funding. Over the past five years, $3-$4 million, on average, has been earmarked for health research funds.

## Alberta

### Alberta Heritage Foundation for Medical Research

**Mission**

"We support a community of researchers who generate knowledge that improves the health and quality of life of Albertans and people throughout the world.
Our long-term commitment is to fund basic, patient and health research based on international standards of excellence and carried out by new and established investigators and researchers-in-training."

**Principles**

The Alberta Heritage Foundation for Medical Research (AHFMR) operates according to the following principles:

- biomedical and health research based on international standards of excellence leads to improved health;
- responsible stewardship of financial resources is necessary to ensure the continuance of AHFMR for future generations;
- AHFMR holds a public trust and is accountable to the people of Alberta;
- effective support of biomedical and health research requires collaboration among research institutions, granting agencies, governments and the private sector;
- researchers require a supportive environment to achieve excellence in a highly competitive world of research; and
- AHFMR requires autonomy and independence to be effective.

Heritage funding from oil and gas royalties has contributed significantly to a research environment in Alberta that is attracting some of the best scientists involved in research from the laboratory to the bedside to the community. These research groups collaborate internationally and, as a result, attract, train and retain the brightest students.

**Governance**

AHFMR is governed by a Board of Trustees with representatives from universities, the medical profession and the general public. It is headed by a CEO-President. An international Scientific Advisory Council and other groups advise the Board of Trustees, including committees of researchers who assess applications for awards. The Alberta Heritage Foundation for Medical Research reports to the people of Alberta through the Minister of Innovation and Science but is arms length from government.

Every six years an International Board of Review assesses AHFMR's programs and submits a report to the Foundation and the government of Alberta.

**Funding and Funding Processes**

Operating funds come from a portion of the interest revenue from a government endowment, with an initial investment of $300 million. Since 1980, AHFMR has contributed more than $600 million directly to the scientific community. For every dollar contributed by the government, an additional $2 to $3 has been leveraged or attracted from other funding sources (e.g. national granting councils, voluntary agencies, private sector, etc.).

All funding is awarded based on peer review. Competitions are held several times a year in various categories. In 2001, $56 million in grants and awards will be distributed.

AHFMR supports senior researchers recruited from Alberta and around the world and researchers-in-training. Since 1980, AHFMR has supported more than 6000 positions, providing opportunities for research careers to develop and grow. Heritage investigators have earned international acclaim for their work in areas such as heart attack therapy, islet transplantation for diabetics, nerve regeneration, cell biology of cancer, viral infection medication, electrical therapy for paralysis, and vaccines.

All funded researchers must be employed by a university or a non-profit organization that supports research. Scientists are supported through stipends and benefits, using a university salary scale. As of July 1, 2000, 190 senior research investigators at the University of Calgary, the University of Lethbridge and the University of Alberta were receiving support. Grants and awards included personnel awards and establishment grants for senior scientists, training awards for students, infrastructure grants including equipment and conference grants, and special initiative funding in health research.

## Saskatchewan

### Saskatchewan Government

Saskatchewan Health allocated $5.008 million to support health research in the province in the 2000-'01. It was distributed as follows:

- $2.558 million to the Health Services Utilization and Research Commission to support its work as an applied health services research agency and a research funding agency;
- $1.2 million to the Department of Psychiatry in the College of Medicine, University of Saskatchewan, to support the neuropsychiatric and applied research groups. This support is seen as a way to recruit psychiatrists and researchers;
- $600,000 to the Saskatchewan Cancer Agency for use in clinical trials and to attract and retain specialists;
- $250,000 to the Centre of Agricultural Medicine, College of Medicine, University of Saskatchewan, to conduct population health work with rural communities and farm populations; and
- $400,000 to the provincial $1 million-year matching fund for the Saskatchewan-CIHR Regional Partnership Program.

Saskatchewan Economic and Co-operative Development also supports health research, as follows, by:

- contributing $250,000 to the provincial matching fund for the Saskatchewan-CIHR Regional Partnership Program; and
- operating an Innovation and Science Fund, designed to provide the local portion of funds for federal matching grants. Although most of the $10-million fund ($15-million in 2001-'02) is tagged for matching Canadian Foundation for Innovation grants related to the new Canadian Light Source at the University of Saskatchewan, researchers may apply for funds to match federal grants from other agencies, such as the Canadian Health Services Research Foundation and the Canadian Institutes of Health Research.

## Health Services and Utilization and Research Commission

The Health Services Utilization and Research Commission (HSURC) was established in 1992 and operates as an arms-length government agency under *The Health Services Utilization and Research Commission Act.* It has two mandates: 1) to assess Saskatchewan's health services and make recommendations for evidence-based change; and 2) to stimulate and fund university-based health research in Saskatchewan.

In 2001-'01, just over 40% of HSURC's $2.558 million budget was devoted to its health services research mandate. Some studies are carried out at the request of the minister of health and others based on priorities identified by HSURC and others in the health sector. HSURC works closely with the provincial health districts to define research priorities and share results with a strong commitment to knowledge transfer.

The other roughly 60% of HSURC's 2000-'01 budget was devoted to its granting agency work. It provided competitive, peer-reviewed research grants to support the career establishment of new university faculty, health-related social science research, and postdoctoral fellowships. A new grant program in 2001-'02 will offer support to researchers for responding to national strategic health research initiatives, especially those of the CIHR.

Other granting-agency priorities include contributing to and managing funds for both the Saskatchewan Population Health and Evaluation Research Unit and the Saskatchewan-CIHR Regional Partnership Program. HSURC also works closely with its university and health sector partners to promote increased support for health research in the province.

## Manitoba

### Manitoba Health Research Council

**Purpose**

The Manitoba Health Research Council was established by an act of the legislature in June 1982 to promote and assist basic, clinical and applied research in the health sciences in Manitoba and to advise the Minister of Health on research matters referred to it.

**Funding**

Core programs have been funded by grants from the Department of Health and the Manitoba Lotteries Foundation. Funding for 2000/2001 was $1,750,600 from the Lotteries' portion of the health department's budget. The Council also administers two other programs on behalf of the province, the University-Industry Program and the Regional Partnerships Program. The University-Industry program is supported by a fund established in 1989 with monies transferred to Manitoba by the federal government under Bill C-22. The aim of the program is to make it possible for health scientists at Manitoba universities to work in close co-operation with industry for mutual benefit. The company partner is expected to provide a financial contribution in cash or in-kind equivalent to at least 50% of the total cost of the project.

**Core Programs**

- Establishment grants are provided to recently recruited university faculty members to permit them to focus on building a research program. Awards up to $100,000, which must be used within a three-year period, provide support for such things as buying out of teaching time, paying salaries for research personnel, and purchasing equipment and supplies. These awards are intended for investigators who show exceptional promise in their ability to carry out independent research in the health sciences.

- Operating grants are available to investigators with an academic appointment in Manitoba who have held the appointment for a period of not more than five years.

- Postdoctoral fellowships are available to those with doctoral degrees whose prior postdoctoral research training does not exceed three years.

- Graduate studentships (in limited numbers) are offered to graduate students who are undertaking full time master's or doctoral programs in Manitoba. Applications are considered for out-of-province graduate programs if documented evidence is provided confirming the unavailability of provincial training opportunities, a need in Manitoba for individuals with the training, and a firm commitment by the applicant to return to the province after training.

- Ph.D. dissertation awards up to $5,000 are provided to students enrolled in a Ph.D. program in population health or health-related social sciences who have completed all relevant course work and whose dissertation proposal has been approved by their advisory committee.

- Bridge funding awards are designed to allow experienced, productive investigators who have lost funding from a major national agency to maintain their research operation while they attempt to regain national funding. These one-year awards are given once only.

**Regional Partnerships Program**

The province has pledged to provide $1 million per year in matching funds for individual project grants and awards to Manitoba scientists under the CIHR Regional Partnerships Program. To be eligible for matching funds, the project must have received a rating of 3.5 or above. Awards are for two years. Funding for the last six months is withheld pending documentation that the grantee has applied to the regular CIHR Operating Grants competition.

**Other Information**

The primary aim of the Manitoba Health Research Council is to fund newly appointed researchers to give them an opportunity to establish a research program and base that will help make them competitive for grants from national and international agencies. Qualified students, primarily in medicine and dentistry, who are not funded through other means are also a target audience.

The Council also supports social and population health research. This area opens up funding to researchers from other health-oriented professions such as nursing, physical education, and sociology.

All Manitoba Health Research Council's funding comes directly from the Province. However, the Council is arms-length from the government; the board establishes policies regarding the kinds of competitions and parameters for funding in each area of competition. Internal review committees make recommendations for individual grants and awards based on a 0- to 5-point rating; the latter are reviewed by an overview committee prior to recommendation to Council for action.

The Council also is considering the possibility of providing clinical fellowships for practicing clinicians to release them for one day a week to conduct research. In addition, the Council is considering using the Establishment grants program to recruit researchers from outside the province by augmenting the current awards with a matching component that would allow applicants to increase the total grant to $200,000.

## Ontario

Health-related research funding in Ontario is characterized by the involvement of a broad range of government departments, universities, and research organizations. This section notes only some of the programs. There is no single organization that provides arms-length, integrated management of research stimulation and funding.

**Ministry of Health and Long-Term Care**

The Ministry of Health and Long-Term Care provides a range of funding to research teams, centres, institutes, universities, and other independent research organizations in Ontario. In 2000-2001, the Ministry of Health and Long-Term Care's Research Unit allocated $ 46.7 million to support a broad range of research including:

- research foundations, institutes and centres
- interdisciplinary research teams
- regional health information partnerships
- research projects
- career development for new scientists and research trainees
- development programs

In addition, the Ministry has established partnerships with a number of national granting agencies to provide funding for Ontario-based research. Following are two such initiatives:

- The Ontario Health Services Research Co-sponsorship Fund facilitates access by the Ontario health services research community to a national grants program available from the Canadian Health Services Research Foundation (CHSRF). The Fund has earmarked funds from 1999 to 2005 to support the CHSRF Open Grants Competition. Of interest are research projects that are highly relevant to the Ministry's business plan and priorities.

- The Ministry of Health and Long-Term Care co-sponsors, along with the Canadian Institutes of Health Research (CIHR), the CIHR Health Partnership Fund. By contributing matching funds, the Ministry facilitates access by the Ontario health research community to a national personnel awards program. In 2001, the Ministry has provided support for three investigator awards and one doctoral award.

The Ministry has also invited applications for its Open Provincial Competition for Career Scientist Awards under the Health Research Personnel Development Fund of the Ontario Health Research Program. In 2000, applications were received and four new career scientist awards were granted. The awards are limited to researchers whose focus is on health services, which examines the management, organization, and effectiveness of health services to inform decision-making in policy, planning and delivery of health services.

In 2000-2001 a special competition called "Making Research Relevant: Building Capacity in Ontario", was launched on a one-time basis only and was set up to build the capacity of:

- government decision and policy makers to use research to identify priorities, communicate them to the research community, and understand and incorporate the results of research into their decisions
- researchers to communicate their results to, and to improve their abilities to effectively link with, government policy and decision-makers and the broader health system's managers and planners

The Ministry funded nine projects as a result of the Making Research Relevant Project Competition, for a total investment of $780,000.

**Other Special Funds**

The Ontario government is investing more than $23 million in Ottawa-area projects through the Ontario Research and Development Challenge Fund and the Ontario Innovation Trust. Of this amount, nearly $12 million will be invested in a stem cell and gene therapy project at the Ottawa Hospital Research Institute.

The Ontario Innovation Trust funds hospitals, universities, community colleges and other non-profit organizations that carry out research. For-profit organizations are not eligible but will be considered if public/private partnerships are funded. Trust funds can be used for equipment, scientific collection, computer software, information databases, and communications link. They may also be used for acquisition, housing, installation and servicing costs related to the research infrastructure, as well as for new buildings and modifications to existing structures. However, the Trust does not fund salaries of research personnel. In addition, the Trust also provides matching funds for projects supported by the Canada Foundation for Innovation.

The Ontario Research and Development Challenge Fund promotes research excellence by increasing the R&D capacity of Ontario universities and other research institutions through private and public sector partnerships. The Fund is itself a partnership between five ministries of the Ontario government (Energy, Science and Technology; Training, Colleges and Universities; Economic Development and Trade; Finance; and Agriculture, Food and Rural Affairs) and the Ontario Jobs and Investment Board. The Fund also provides money for personnel costs.

The province is investing $500 million in the Fund over 10 years. When combined with contributions from industry, business, research institutions and other supporters, the Fund is expected to generate a total investment of $3 billion in R&D activity.

A priority of the Fund is to attract and retain world-class researchers in Ontario. To do this, the Fund provides for research equipment and facilities as incentives for researchers, as well as supporting research projects.

**The Challenge Fund**

In May 1997, the provincial government created the Ontario Research and Development Challenge Fund (ORDCF) to:

- promote world-class research of interest to the private sector
- encourage collaboration between the private sector and research institutions
- attract and keep top scientists and enable talented young scientists to pursue their research interests
- help Ontario's research institutions build their R&D capacity so they are able to obtain funding from other sources.

The Ontario Government initially committed $500 million over 10 years to the ORDCF. To the end of December 2000, the ORDCF has committed investments of more than $315 million in 76 projects. Contributions by institutions and their corporate partners bring the total investment in these projects to over $977 million.

Proposals for ORDCF funding are submitted in competition rounds held three times a year. The ORDCF Board of Directors evaluates proposals based on three major criteria: institutional vision, research excellence, and economic impact such as job creation. The Board recommends projects for funding to the ministers of Energy, Science and Technology; Economic Development and Trade; Finance; Training, Colleges and Universities; and Agriculture, Food and Rural Affairs.

ORDCF investment in the life sciences is outlined in the table below. This investment of over $198 million by the Challenge Fund in life sciences-related projects, represents 3.5 years of activity since the Fund was created. The partnership, established with Ontario institutions and private sector industries, has levered over $623 million in life sciences projects. To date the ORDCF has committed to invest over $28 million in the Ottawa/Kingston area alone. As of July 2001, the total ORDCF commitment in Ontario R&D stands at over $374 million.

**Investment in Life Sciences**

| Sector | # | ORDCF | Total Project Value |
|---|---|---|---|
| Biomedical | 12 | $47,431,696 | $164,761,352 |
| Biopharma | 6 | $6,311,800 | $19,787,845 |
| Genomics | 11 | $51,781,263 | $158,096,290 |
| Imaging | 5 | $57,732,744 | $174,059,809 |
| Proteomics | 5 | $35,670,476 | $107,009,626 |
| **Totals** | **39** | **$198,927,979** | **$623,714,922** |

## Quebec

**Le Fonds de la recherche en sante du Quebec**

Le Fonds de la recherche en sante du Quebec (FRSQ) or the Health Research Foundation of Quebec is a not-for-profit organization that supports the development of health science and technology in Quebec. Le Fonds is mandated by the government of Quebec and is governed by an administrative council whose members are appointed by the government. Its mission is to improve the health of the population and participate in the economic development of Quebec. Its specific mandate includes:

- promoting health research;
- overseeing the development of integrated research among a variety of interested partners;
- maintaining a practice of high-quality, scientific research while developing and training researchers in collaboration with the universities;
- maintaining adequate funding for health research, preferably through public and private partnerships; and
- maximizing the impact of research on health and the economy.

To achieve its goals, Le Fonds financially supports few research projects; it more often funds the infrastructure that facilitates the acquisition of funding for projects and research contracts. This is done through three main programs:

- granting program for student researchers and for training students;
- program of support for research centres affiliated with universities and hospitals; and
- program for networks of researchers from diverse fields working on areas identified as priorities by the Quebec government.

The total amount of money distributed by Le Fonds during 1999-2000 was $60,941,659. Of this, 62% ($37.5 million) went to infrastructure costs at various research centres in the province. Support for researchers working on provincial or national projects tallied $13.5 million or 22%. The rest went to education grants, partnerships, and special project funding.

Among the research priorities identified by Le Fonds are:

- applied genetics
- clinical ethics
- gerontology/geriatrics
- dental health
- cardiovascular health
- vision
- healthy environment
- cancer
- mental health
- respiratory health

## New Brunswick

### Medical Research Fund of New Brunswick

The Medical Research Fund of New Brunswick was established by the Executive Council of the government in 1989. Funding of an investment account was made through the Patent Act of Canada in the amount of $2.8 million. Annual awards are granted from the return on this investment. Administration of the fund is handled through the New Brunswick Department of Health and Community Services.

The purpose of the Medical Research Fund of New Brunswick is to provide financial assistance for health-related research within the province.

Other funding for research initiatives comes from investment income from private donations in a special fund and from federal contributions, patent agreements, and other arrangements.

All funds are awarded in the form of grants to researchers/applicants. Granting conditions include:

- the principal researcher must be based in New Brunswick,
- the research must contribute toward better understanding of a health-related issue,
- the research must be significant to New Brunswick,
- the research must be novel,
- it must be completed within a 12-month time frame, and
- a report must be submitted at the completion of the research.

Extra funding (up to $30,000 annually) is also available to successful applicants of the Canadian Health Services Research Foundation. A Memorandum of Understanding has been signed between CHSRF and the New Brunswick government stating that the fund will match Foundation awards if applicants meet New Brunswick eligibility requirements.

The process of proposal review includes:

- peer review by two independent reviewers familiar with the subject,
- further review by a committee that includes one of the two peer reviewers (The committee decides the methodology for ranking applications), and
- development of final recommendations to the Minister of Health.

Approximately $130,000 was awarded in 2000. As is the case in other provinces, New Brunswick has identified the need for training in grant writing.

### New Brunswick Department of Health and Wellness

The New Brunswick Department of Health and Wellness carries out analyses of health system utilization, monitors health outcomes, conducts epidemiological studies, monitors changes in the health status of the population, and conducts program reviews and evaluations.

In addition, it collects and maintains data on all vital events of the population and ensures that this information is effectively used in the planning and management of the health system. It also provides support for the conduct of health research that is of interest to New Brunswick.

## Prince Edward Island

### PEI Health Research Institute

PEI has invested $2 million in health research. Part of this money – $100,000 a year for five years – has been given to the PEI Health Research Institute. With this money, it:

- helps enhance the capacity to do research in PEI,
- helps researchers to do better research,
- provides seed money to make it more likely that research grants will be given e.g., if a grant application is not successful, the Institute might fund a group to prepare the proposal and do a pilot that would make it more likely that the next application would succeed,
- assists researchers by paying for peer reviewers, and
- provides workshops on grant writing and proposal writing.

The Institute has not sought other sources of funding because it is not the primary funding source for research; this is done by government. However, it looks for private partnerships to continue its mandate.

### Government of Prince Edward Island

The government provides some matching grants in concert with Canadian Institutes of Health Research and the Canadian Health Services Research Foundation. Review of proposals for these programs is done by those organizations. To be eligible for matching grants, researchers must meet the following criteria:

- there must be potential for positive health impact
- the research must be relevant to current issues
- the research must be consistent with the purposes of the PEI health research program, which is currently focused around chronic illness, cardiovascular disease, cancer, diabetes and asthma.

Approximately $330,000 a year is available for research. Of this, $100,000 goes to the Health Institute and $230,000 to researchers who are approved to carry out projects.

## Nova Scotia

### Nova Scotia Health Research Foundation

The Nova Scotia Health Research Foundation (NSHRF) was established in December 1998 by an act of the government. It is supported by an annual contribution of $5 million from the provincial government. Its objectives are to assist, collaborate with, and fund individuals and organizations conducting health research in the province.

The Foundation:

- identifies health research priorities through consultation and communication with government, health boards, organizations, institutions and individuals;
- allocates funds to support the province's health-research priorities and capacity development, including the retention of skilled personnel;
- establishes a peer-review system to ensure that scientific and ethical standards are maintained in awarding all grants;
- communicates research findings;
- establishes a forum for interaction among health researchers and those who apply the findings; and
- seeks both private and public money for the working of the Foundation.

Four types of research are funded:

*Health-Services Research*: Research into the efficiency and effectiveness of the management, organization, and delivery of health services.

*Health-Outcomes Research*: Research into changes in the health status of populations due to the implementation of health program or services.

*Health Public-Policy Research:* Research into the impact of social factors, allocation of resources, legal and ethical issues and the administration, organization, and financing of health care.

*Medical Research*: Research that includes basic scientific and biomedical research as well as clinical and epidemiological investigations.

The objectives of the Foundation are:

- to build and sustain a full range of health research in Nova Scotia;
- to foster health research as a foundation of health care, health education and health policy in Nova Scotia;
- to create and maintain a vibrant environment for research in the training of health professionals and health research investigators;
- to foster partnerships in health research among disciplines and across institutions;
- to support research that has the potential to increase economic activity in Nova Scotia; and
- to support research that addresses health issues of importance to Nova Scotians.

**Matching Grant Programs**

CHSRF Open Grants Competition

The Nova Scotia Health Research Foundation provides matching funds for Nova Scotian researchers successful in the Open Grants Competition held by the Canadian Health Services Research Foundation (CHSRF).

The NSHRF will consider providing matching funds to Nova Scotian researchers who are primary investigators and to multi-jurisdictional research projects and programs that feature the significant involvement of both Nova Scotian researchers and decision-makers. This involvement must be meaningful and substantive and must be clearly articulated at the letter-of-intent stage.

Pre-approval from the Foundation is not required for projects or programs that have a Nova Scotian researcher as a primary investigator. It is, however, required for multi-jurisdictional projects where the principal investigator is not a Nova Scotian researcher. A copy of the letter of intent is forwarded to the NSHRF with a written request for a matching fund commitment. The Foundation determines the appropriateness of the request based on the involvement of Nova Scotians and the relevance to Nova Scotia.

Funding decisions will also be made depending on the availability of funds; projects will be funded in rank order based on the priority rating established by the CHSRF merit review panel until the budget is expended.

CIHR Regional Partnership Program

The NSHRF contributes $500,000 annually towards the Canadian Institutes of Health Research (CIHR) Regional Partnership Program.

Other Matching Opportunities

The NSHRF will consider requests for matching funds on an individual basis. Funding time frames are limited to two years with a usual ceiling of $50,000 per year.

Any Nova Scotian researcher interested in a co-funding opportunity other than those listed above is welcome to contact the NSHRF directly with the request.

## Nova Scotia Research and Innovation Trust Fund

In April 2001, the Nova Scotia government announced the creation of a $15 million trust fund to support projects funded through the Canada Foundation for Innovation. However, it is not yet operational.

## Capacity Building Program

The Nova Scotia Health Research Foundation is committed to supporting and encouraging research in Nova Scotia. Therefore, a significant amount of funding has been designated to support capacity building initiatives. Individuals interested in accessing this money should submit a written request under the Capacity Building Program. Funds are available to both new and established Nova Scotia health researchers and students enrolled in a health discipline at an educational institution in the province.

Program Objectives

- To actively encourage and support students at all levels of university study to participate in research-related activities
- To actively support researchers in the development of research proposals
- To encourage innovative approaches to developing research skills in the research community
- To actively support pre-research activities.

***Students***

Financial support is available to students in the form of:

- research awards to complete a research project such as an honors thesis
- travel support to present research results at conferences
- funds to support activities that showcase student research results e.g., at a research day or poster competitions

The maximum amount awarded per activity is $1000, although if there are exceptional circumstances these will be taken into consideration.

***Proposal Development/Support***

This type of support is used to assist with:

- proposal preparation for national grant competitions after the letter-of-intent stage
- a mentoring service
- copy-editing services
- access to grant-writing expertise

Funding amounts are determined by the particular circumstances of the research team.

***Research Skills***

To encourage innovative approaches to developing research skills in the research community, the NSHRF Capacity Building Program will:

- provide access to information through the NSHRF web site
- support access to mentoring services
- sponsor teams to attend conferences

***Pre-research Activity Grant***

To actively support pre-research activities, NSHRF will:

- fund a project program for the development of a research proposal. The outcome of the project will be the submission of a grant application to the NSHRF.

The maximum amount funded per program is $20,000 for one year only. Two to three programs are funded each fiscal year.

## Newfoundland and Labrador

### Newfoundland and Labrador Centre for Applied Health Research

The Newfoundland and Labrador Centre for Applied Health Research was established in September 1999 as a partnership among Memorial University, the Department of Health and Community Services, and the Health Care Corporation of St. John's.

The Centre's mandate is to increase the province's capacity to carry out high-quality research on applied health issues. Biomedical research, except where it overlaps with applied and policy-related questions, is outside the Centre's purview.

The Centre is an umbrella organization that includes:

- the Patient Research Centre,
- clinical trials done out of the Health Sciences Centre,
- epidemiological research done out of the Health Sciences Centre,
- the Health Research Unit, which is part of the division of Community Health,
- the Nursing Research Unit of the School of Nursing, and
- the Centre for Rural Health Research, which is part of the division of Family Practice.

The Centre has a budget of $900,000 that is fairly evenly distributed among contracted research projects, fellowship research by graduate students, and staff salaries. As well, about $100,000 is earmarked for development, primarily writing research proposals.

The Centre:

- encourages the formation, and supports the functioning of, inter-disciplinary and inter-faculty research teams within the university working on health-related questions;
- develops and supports research activities on all aspects of applied health research in collaboration with Memorial University's Office of Research, the research offices of its various faculties, and existing research teams and centres;
- facilitates cooperation between university-based researchers and those elsewhere in the province, both in the institutions of the health care system and elsewhere in the community, as well as those in other provinces and other countries;
- develops partnerships with research centres in Canada and in other countries;
- serves as a bridge between researchers and decision-makers working in government, the provincial health care system and community organizations so that more research can be done that is of relevance to both researchers and policy makers, and so that decisions on public policy and on clinical issues can be made on the basis of the best possible scientific evidence;
- helps researchers in Newfoundland and Labrador gain fuller access to federal and international funding opportunities; and
- carries out research through its faculty associates and research staff.

# Contacts

**British Colombia**

| | |
|---|---|
| Contact name: | Dr. Richard Whitney, Executive Director |
| Organization: | Michael Smith Foundation for Health Research |
| Phone: | (604)436-3573 |
| Fax: | (604)436-2573 |
| E-mail: | info@msfhr.org |
| Web: | www.msfhr.org |
| Address: | 710, 4270 Kingsway, Metrotower II<br>Burnaby, B.C.<br>V5H 4N2<br>(Interim address pending upcoming move to 1285 West Broadway, Vancouver) |

**Alberta**

| | |
|---|---|
| Contact name: | Kathleen Thurber, Director of Communications & Education |
| Organization: | Alberta Heritage Foundation for Medical Research |
| Phone: | (780)42305727 |
| Fax: | (780)429-3509 |
| E-mail: | postmaster@ahfmr.ab.ca |
| Web: | www.ahfmr.ab.ca |
| Address: | Suite 1500<br>10104 – 103 Avenue<br>Edmonton, Alberta<br>T5J 4A7 |

**Saskatchewan**

| | |
|---|---|
| Contact name: | June Bold, Director of Grants and Awards |
| Organization: | Health Services Utilization and Research Commission |
| Phone: | (306)655-1502 |
| Fax: | (306)655-1462 |
| E-mail: | boldj@hsurc.sk.ca |
| Web: | www.hsurc.sk.ca |
| Address: | Box 46, 103 Hospital Drive<br>Saskatoon, SK S7N 0W8 |

**Manitoba**

| | |
|---|---|
| Contact name: | Dr. Bruce E. McDonald, Executive Director |
| Organization: | Manitoba Health Research Council |
| Phone: | (204)775-1096 |
| Fax: | (204)786-5401 |
| E-mail: | mhrc@cc.umanitoba.ca |
| Web: | www.umanitoba.ca/academic support/MHRC/ |
| Address: | P127 – 770 Bannatyne Avenue<br>Winnipeg, Manitoba<br>R3E 0W3 |

**Ontario**

| | |
|---|---|
| Contact name: | Anne Matthews, Media Relations Manager, Communications & Info Branch |
| Organization: | Ministry of Health and Long-Term Care |
| Phone: | (416)327-4382 |
| Fax: | (416)327-8791 |
| E-mail: | mediamoh@gov.on.ca |
| Web: | www.gov.on.ca/health/ |
| Address: | 80 Grosvenor Street,<br>Hepburn Block, 9th Floor<br>Toronto, Ontario<br>M7A 1S2 |

| | |
|---|---|
| Contact name: | David Bogart, Executive Director |
| Organization: | Ontario Innovation Trust |
| Phone: | (416)592-3652 |
| Fax: | (416)592-3685 |
| E-mail: | dbogart@oil.on.ca |
| Web: | www.oit.on.ca |
| Address: | 700 University Avenue<br>Suite HG105<br>Toronto, Ontario<br>M5G 1Z5 |

| | |
|---|---|
| Contact name: | Dr. Maurice Bitran |
| Organization: | Ontario Research and Development Challenge Fund |
| Phone: | (416)592-3644 |
| Fax: | (416)592-3685 |
| E-mail: | mbitran@ordcf.on.ca |
| Web: | www.ontariochallengefund.com |
| Address: | 700 University Avenue Suite HG105<br>Toronto, Ontario M5G 1Z5 |

**Quebec**

| | |
|---|---|
| Contact name: | Dr. Michel A. Bureau, President |
| Organization: | Fonds de la recherche en santé du Quebec |
| Phone: | (514)873-2114 |
| Fax: | (514)873-8768 |
| E-mail: | mbureau@attglobal.net |
| Web: | www.frsq.gouv.qc.ca |
| Address: | 500, rue Sherbrooke Ouest<br>Bureau 800<br>Montreal, Quebec<br>H3A 3C6 |

**New Brunswick**

| | |
|---|---|
| Contact name: | John Boyne, Acting Director for Program Analysis & Evaluation |
| Organization: | Medical Research Fund of NB<br>Department of Health and Wellness |
| Phone: | (506)453-2793 |
| Fax: | (506)444-4697 |
| E-mail: | john.boyne@gnb.ca |
| Web: | www.gnb.ca |
| Address: | Carleton Place<br>7th Floor<br>Fredericton, New Brunswick<br>E3B 5G8 |

**Nova Scotia**

| | |
|---|---|
| Contact name: | Krista Connell, Executive Director |
| Organization: | Nova Scotia Health Research Foundation |
| Phone: | (902)424-4043 |
| Fax: | (902)424-7753 |
| E-mail: | info@nshrf.ca |
| Web: | www.nshrf.ca |
| Address: | 1690 Hollis Street<br>9th Floor<br>Halifax, Nova Scotia<br>B3J 2R8 |

**Prince Edward Island**

| | |
|---|---|
| Contact name: | Donna Murnaghan, Associate Director |
| Organization: | PEI. Health Research Institute |
| Phone: | (902)894-2812 |
| Fax: | (902)894-2811 |
| E-mail: | peihri@upei.ca |
| Web: | www.peiland.com/temp/peihri |
| Address: | Dalton Hall<br>UPEI<br>550 University Avenue<br>Charlottetown, PE<br>C1A 4P3 |

**Newfoundland and Labrador**

| | |
|---|---|
| Contact name: | Stephen Bornstein, Director |
| Organization: | NF and Labrador Centre for Applied Health Research |
| Phone: | (709)777-6993 |
| Fax: | (709)777-6734 |
| E-mail: | sborste@mun.ca |
| Web: | www.med.mun.ca/cahr |
| Address: | 95 Bonaventure Avenue<br>St. John's, Newfoundland<br>A1B 2X5 |